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<b>PRE-APPEAL BRIEF REQUEST FOR REVIEW</b>		<b>Docket Number (Optional)</b> <b>07754/046001</b>	
	Application Number	Filed	
	10/815,157-Conf. #8197	March 31, 2004	
	First Named Inventor Michael Masterov et al.		
	Art Unit	Examiner	
	3694	D. L. Greene	

Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed with a notice of appeal.

The review is requested for the reason(s) stated on the attached sheet(s).  
Note: No more than five (5) pages may be provided.

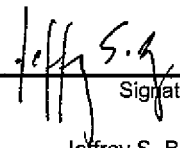
I am the

☐ applicant /inventor.

☐ assignee of record of the entire interest.  
See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96)

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Registration number 45,925

☐ attorney or agent acting under 37 CFR 1.34.  
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 July 15, 2008  
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 Date

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below\*.

☐ \*Total of 1 forms are submitted.

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

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In re Patent Application of:  
Michael Masterov et al.

Application No.: 10/815,157

Confirmation No.: 8197

Filed: March 31, 2004

Art Unit: 3694

For: METHOD AND APPARATUS FOR  
DETECTING HIGH-ENERGY RADIATION  
USING A PULSE MODE ION CHAMBER

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Examiner: D. L. Greene

MS: AFTER FINAL  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**PRE-APPEAL BRIEF REQUEST FOR REVIEW**

Claims 1-2 and 4-13 are pending in this application. Of these claims, claims 10-13 are withdrawn from consideration. Claims 1 and 10 are independent. The remaining claims depend, directly or indirectly, from claim 1 or 10. Claims 1, 2, and 4-9 stand rejected as being unpatentable over U.S. Patent No. 3,873,840 (hereinafter "Ellis") in view of U.S. Patent No. 4,763,343 (hereinafter "Yanaki") or U.S. Patent No. 5,327,029 (hereinafter "Ericson"). Claims 1, 2, and 4-9 stand rejected under 35 U.S.C. 103 (a) as being unpatentable over Ellis in view of either Yanaki or Ericson as applied to claims 1, 2, and 4-9 and further in view of any of Frommer, Experiment 2-8, or Spanswick. Claims 5 and 9 stand rejected under 35 U.S.C. 103 (a) as being unpatentable over Ellis in view of either Yanaki or Ericson as applied to claims 1, 2, and 4-9, and further in view of U.S. Patent No. 6,889,152 (hereinafter "More"). Claims 5 and 9 also stand rejected under 35 U.S.C. 103 (a) as being unpatentable over Ellis in view of either Yanaki or

Ericson and further in view of any of Frommer, Experiment 2-8, or Spanswick, as applied to claims 1, 2, and 4-9, and further in view of More. Applicant respectfully traverses all of the rejections for the reasons set forth below.

**A. Ellis, Yanaki, and Ericson fail to show or suggest at least “measuring a leakage current signal after the voltage pulse has been turned off, after ion transport has stopped, and after measuring the ion current signal,” as required by independent claim 1.**

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Applicant respectfully asserts that Ellis, Yanaki, and Ericson, whether considered separately or in combination, fail to show or suggest at least “measuring a leakage current signal after the voltage pulse has been turned off, after ion transport has stopped, and after measuring the ion current signal,” as required by independent claim 1.

One or more embodiments of the invention are directed to a method for measuring high-energy radiation accurately (*see* Publication of the Specification, paragraph [0053]). With reference to Figures 4 and 5, for example, an ion transport voltage is turned on in step 52, then, an ion current is measured in step 53, and, then, a leakage current is measured in step 55. Then, “[t]he difference between the measurements taken in step 53 and 55 is then used to derive the ion currents that result from high-energy radiation flux” (*see* Publication of the Specification, paragraph [0035]). Accordingly, independent claim 1 requires, in part, “measuring a leakage current signal after the voltage pulse has been turned off, after ion transport has stopped, and after measuring the ion current signal.”

In contrast, Ellis, Yanaki, and Ericson fail to show or suggest at least the above limitation.

In fact, Ellis teaches nothing more than that a gamma signal is subtracted from a signal including the gamma signal and neutron signal (*see* Ellis, column 5, lines 6-9). Further, even assuming *arguendo* that Ellis teaches that it is old and well-known to subtract one signal from another in order to arrive at the desired signal and that it is considered that Ellis *inherently* measures and removes the leakage current as alleged by the Examiner, Ellis does not show or suggest at least a specific way or timing of measuring a leakage current signal as acknowledged by the Examiner (*see* Office Action dated April 15, 2008, at pages 3 and 4).

The MPEP § 2112 makes it clear that “[t]he fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic. . . . In relying upon the theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic *necessarily* flows from the teachings of the applied prior art.”

Therefore, Ellis fails to show or suggest, either expressly or inherently, at least “measuring a leakage current signal after the voltage pulse has been turned off, after ion transport has stopped, and after measuring the ion current signal,” as required by independent claim 1.

Yanaki fails to supply that which Ellis lacks. In fact, Yanaki teaches a *filter for removing noise* (*see* Yanaki, column 13, lines 60-66). It would be clear to a skilled artisan that a leakage current signal is not measured by a noise filter because the noise filter only removes a noise signal. Therefore, Yanaki necessarily cannot show or suggest “measuring a leakage current

signal after the voltage pulse has been turned off, after ion transport has stopped, and after measuring the ion current signal,” as required by independent claim 1.

Further, Ericson fails to supply that which Ellis and Yanaki lack. In fact, Ericson teaches nothing beyond that because leakage currents at the input node add to or subtract from the input signal, the input devices were carefully selected to prevent the effect of the temperature (*see* Ericson, column 5, lines 49-53). That is, Ericson is completely silent with respect to a specific way and timing of measuring a leakage current signal. Therefore, Ericson fails to show or suggest at least “measuring a leakage current signal after the voltage pulse has been turned off, after ion transport has stopped, and after measuring the ion current signal,” as required by independent claim 1.

In view of above, Ellis, Yanaki, and Ericson, whether taken separately or in combination, fail to show or suggest the invention as recited in independent claim 1. Thus, independent claim 1 is patentable over Ellis, Yanaki, and Ericson. Dependent claims are allowable for at least same reasons. Accordingly, withdrawal of the rejection based on Ellis, Yanaki, and Ericson is respectfully requested.

**B. Frommer, Experiment 2-8, Spanswick, and More fails to supply that which Ellis, Yanaki, and Ericson lack.**

Frommer, Experiment 2-8, Spanswick, and More also fail to show or suggest at least the above limitation required by independent claim 1.

This is evidenced by the fact that Frommer, Experiment 2-8, and Spanswick are relied on merely to provide a procedure of zeroing out a detector and the fact that More is relied on merely to provide the details such as adjusting gain of amplifier and applying a ramping voltage (*see*,

e.g., Office Action dated April 15, 2008, at pages 7-10). Further, it would be clear to a skilled artisan that zeroing out the detector is conducted before using it. That is, the procedure of zeroing out a detector as alleged by the Examiner is completely silent with respect to a specific way and timing of measuring a leakage current signal.

In view of the above, Ellis, Yanaki, Ericson, Frommer, Experiment 2-8, Spanswick, and More, whether considered separately or in combination, fail to show or suggest the present invention as claimed in independent claim 1. Thus, independent claim 1 is patentable over these cited references. Dependent claims are allowable for at least the same reasons. Accordingly, withdrawal of all the rejections based on these cited references is respectfully requested.

**C. Conclusion**

Applicant believes this reply is fully responsive to all outstanding issues and places this application in condition for allowance. If this belief is incorrect, or other issues arise, the Examiner is encouraged to contact the undersigned or his associates at the telephone number listed below. Please apply any charges not covered, or any credits, to Deposit Account 50-0591, Reference No. 07754/046001.

Dated: July 15, 2008

Respectfully submitted,

By: \_\_\_\_\_

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